NetVanta Series
(with Octal T1 Wide Module)

Quick Configuration Guide 61200890L1-42B November 2004

Equipment Required

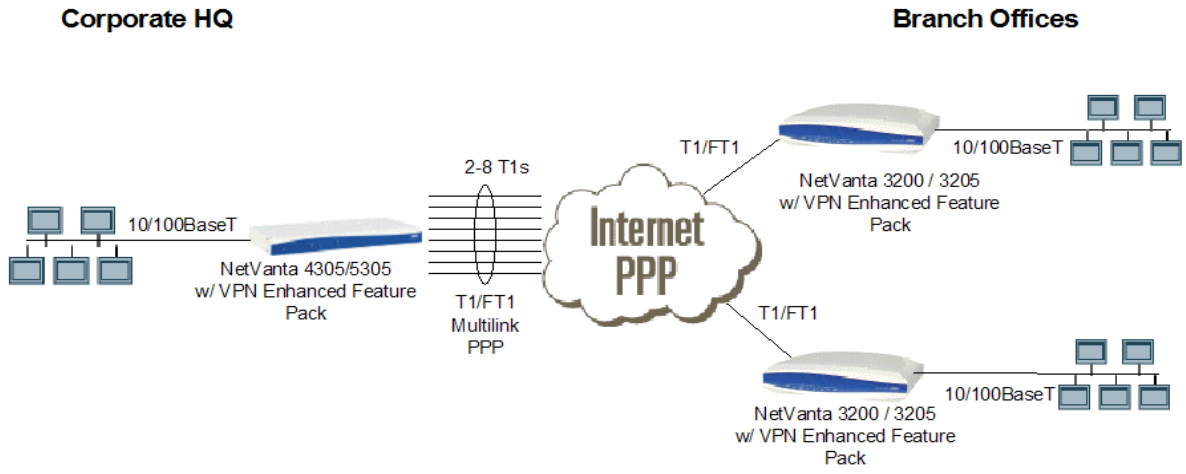
- A VT100 terminal or a PC with VT100 emulator software for connecting to the unit.
- DB-9 (male) to DB-9 (female) straight-through serial cable for configuring the unit.
- Appropriate cable(s) for connecting the system to the existing network.

NOTE

*The configuration sections of this quick configuration guide are formatted to provide step-by-step text descriptions for selected applications. The configuration parameters used in the example outlined in this document are for instructional purposes only. Please replace all bold underlined entries (**example**) with your specific parameters to configure your application.*

Network Diagram

Multilink PPP Internet Access



Connect to the NetVanta 4305

1. Connect a VT100 terminal (or PC with VT100 emulation software) to the NetVanta **CONSOLE** port using a DB-9 (male) to DB-9 (female) straight-through serial cable.
2. Configure the COM port with the following parameters:
 Data Rate: 9600
 Data Bits: 8
 Parity Bits: None
 Stop Bits: 1
 Flow Control: None
3. Open a VT100 terminal session. (Please refer to the appropriate VT100 terminal software documentation for detailed instructions.)
4. Press the **<Enter>** key.
5. Enter **enable** at the **>** prompt.
6. Enter the password when prompted. The default password is **password**.
7. You are now at the **#** prompt. At the **#** prompt, enter **config terminal** to enter the Global Configuration mode.



The NetVanta may be initially accessed and managed either via a console session or through a Telnet session. See Steps 1 through 7 above for console session instructions. Initiating a Telnet session requires using a hub and two Ethernet cables (one for the PC and one for the unit). The default Ethernet IP address is 10.10.10.1. Refer to ***Configure a Telnet Session*** *on page 3 to change Telnet session settings.*

Configure the Ethernet Interface

1. At the **(config)#** prompt, enter **interface eth 0/1** to access the configuration parameters for the Ethernet port located on the rear panel of the unit.
2. Enter **ip address 10.10.10.1 255.255.255.0** to assign an IP address to the Ethernet port using a 24-bit subnet mask.



If you are accessing the NetVanta via Telnet, once you change this IP address, you will lose connection to the NetVanta. You must change the IP address of your PC before you can proceed.



ADTRAN recommends that you set the Ethernet speed and duplex to match the switch or hub it is plugged in to.

For example: (config-eth 0/1)**#speed 100**

(config-eth 0/1)**#full-duplex**

3. Enter **no shutdown** to activate the interface to pass data.
4. Enter **exit** to exit the Ethernet interface commands and return to the Global Configuration mode.

NOTE

The NetVanta Network Interface Modules (NIMs) use a **slot/port** *notation for interface identification. All non-modular interfaces built into the base unit (e.g., the Ethernet port) are identified using* **0** *as the slot number.*

Configure a Telnet Session

The following steps show how to access the Telnet configuration parameters and change the password. The default password for initializing a Telnet session is **password** (all lowercase). For security purposes, change the password to something unique. For this example, replace the underlined **word** with a password of your choosing. The NetVanta supports five Telnet sessions (0 through 4).

1. Enter **line telnet 0** to activate the configuration parameters for the Telnet sessions at the **(config)#** prompt.
2. Enter **login** to prompt the user for a Telnet access password.
3. Enter **password word** to create a login password for the Telnet sessions.
4. Enter **exit** to return to the Global Configuration mode.

NOTE

An enable security mode password must be defined before configured Telnet sessions are activated. Refer to ***Set the Enable Security Mode Password*** *for information on password configuration.*

Set the Enable Security Mode Password

1. Verify that the prompt of your unit displays **(config)#**.
2. Enter **enable password word** to set the Enable Security mode password.

or

3. Enter **enable password md5 word** to encrypt the enable password using MD5 encryption.

NOTE

The Enable Security mode passwords are case sensitive.

Configure the Frame Relay Virtual Interface

The following sections outline configuring a Frame Relay virtual interface (labeled 1) using a single DLCI back to the corporate router (defined as DLCI 16).

NOTE

The following steps assume the Global Configuration mode is currently active. Verify the prompt of your unit displays **(config)#**.

Create the Interface and Define the Encapsulation

1. Enter **interface fr 1** to create a Frame Relay virtual interface labeled 1.
2. Enter **frame-relay lmi-type none** (contact your service provider for your correct LMI-type) to configure signaling on the Frame Relay virtual interface 1. The default LMI type is ANSI (Annex D).
3. Enter **no shutdown** to activate the interface to pass data.
4. Enter **exit** to return to the Global Configuration mode.

Create the PVC and Assign an IP Address

1. Enter **interface fr 1.1** to create the first PVC assigned to Frame Relay virtual interface 1. This activates the configuration parameters for the PVC. Your prompt should now display **Router(config-fr1.1)#**.
2. Enter **frame-relay interface-dlci 16** to assign DLCI 16 to this PVC. (DLCIs should be supplied by your network provider.)
3. Enter **ip address 192.22.72.1 255.255.255.0** to assign an IP address of 192.22.72.1 for this PVC using a 24-bit subnet mask.
4. Enter **exit** to return to the Global Configuration mode.

Configure the PPP Interface

The following steps outline configuring a PPP interface (labeled 1) to the NetVanta.



The following steps assume the Global Configuration mode is currently active. Verify the prompt of the unit displays **(config)#**.

1. Enter **interface ppp 1** to create a PPP interface labeled 1.
2. Enter **ip address 192.22.72.1 255.255.255.0** to assign an IP address to the PPP interface using a 24-bit mask.
3. Enter **no shutdown** to activate the interface to pass data.
4. Enter **exit** to return to the Global Configuration mode.

Create a T1 to a Virtual Interface Cross-Connect



For this example we will configure a T1 WAN interface with DS0s 1 through 10 for data. The following steps assume the Global Configuration mode is currently active. Verify that the prompt of your unit displays **(config)#**.

1. Enter **interface t1 1/1** to activate the interface configuration mode for the T1 WAN interface.
2. Enter **tdm-group 1 timeslots 1-10** to create a TDM group for DS0s 1-10 on the T1 network connection (t1 1/1).
3. Enter **no shutdown** to activate the interface to pass data.
4. Enter **exit** to return to the Global Configuration mode.
5. Enter **cross-connect 1 t1 1/1 1 frame-relay 1** to connect DS0s 1-10 of the T1 network connection (t1 1/1) to the virtual frame-relay interface fr 1.

Alternately,

6. Enter **cross-connect 1 t1 1/1 1 ppp 1** to connect DS0s 1-10 of the T1 network connection (t1 1/1) to the PPP interface labeled 1.

Configure the Multilink PPP interface



The following steps assume the Global Configuration mode is currently active. Verify the prompt of the unit displays **(config)#**.

1. Enter **interface ppp 2** to access the configuration parameters for the PPP interface.
2. Enter **ip address 192.22.73.1 255.255.255.0** to assign an IP address to the PPP interface using a 24-bit mask.
3. Enter **ppp multilink** to configure the PPP interface for multilink PPP.
4. Enter **no shutdown** to activate the interface to pass data.
5. Enter **exit** to return to the Global Configuration mode.

Create an Octal T1 Multilink Cross-Connect

> NOTE
>
> *For this example we will configure T1 WAN interfaces with DS0s 1 through 24 for data. The following steps assume the Global Configuration mode is currently active. Verify that the prompt of your unit displays* **(config)#**.

1. Enter **interface t1 3/1** to activate the first T1 interface configuration mode on the Octal T1 Wide Module.
2. Enter **tdm group 1 timeslots 1-24** to create a TDM group for DS0s 1 through 24 on the T1 connections.
3. Enter **no shutdown** to activate the interface to pass data.
4. Enter **cross-connect 2 t1 3/1 1 ppp 2** to connect DS0s 1 through 24 of the T1 network connection (t1 3/1) to the multilink ppp interface labeled 2.
5. Enter **interface t1 3/2** to activate the second T1 interface configuration mode on the Octal T1 Wide Module.
6. Enter **tdm group 1 timeslots 1-24** to create a TDM group for DS0s 1 through 24 on the T1 connections.
7. Enter **no shutdown** to activate the interface to pass data.
8. Enter **cross-connect 3 t1 3/2 1 ppp 2** to connect DS0 1 through 24 of the T1 network connection (t1 3/2) to the multilink ppp interface labeled 2.
9. Repeat the process to configure any additional T1 interfaces needed for your application.

Save the Configuration

1. Verify that the prompt of your unit displays **(config)#**.
2. Enter **exit** to leave configuration mode.
3. Enter **copy running-config startup-config** to save the current configuration to memory. This command may be abbreviated as **copy run start**.
4. Enter **exit** to close the configuration session.